B.C. HYDRO

KELLY LAKE - CHEEKYE TRANSMISSION LINE PROJECT

ENVIRONMENTAL STUDIES
LAND USE/SOCIO-ECONOMIC COMPONENT

PART 2 - NATIVE COMMUNITIES

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Urban Systems Ltd.
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1.1 BACKGROUND

B.C. Hydro is applying for an Energy Project Certificate to construct an additional 500 kV transmission line between the Kelly Lake substation, located near Clinton, and the Cheekye substation in Squamish. In addition to the proposed route, three alternative routes have been identified. All routes have been the subject of environmental/socio-economic assessments carried out over the past two years. Similar route investigations were also undertaken through this region during the late 1970s and early 1980s.

1.2 SIGNIFICANCE OF THE NATIVE COMMUNITIES

The native communities are a very significant component of the human environment within the area under study. There are ten Bands within the study area. These Bands and Reserves they hold within the study area are shown on Figure 1. The native population in the Lillooet, Seton Lake, D'Arcy and Pemberton areas roughly equals the non-native population. While some of the anticipated native land use and socio-economic impacts associated with the proposed transmission line are common to the study area's non-native communities, many are substantially different. This is due to the native communities' characteristics, some of which include:

- special status of the native people
- status of Reserve lands
- native government and organizational structure
- attachment to traditional territories
- cultural and spiritual values attributed to lands and resources
- cultural, spiritual and economic goals and aspirations of native people

1.3 SCOPE OF REPORT

This report comprises Part 2 of the overall Kelly Lake - Cheekye Land Use/Socio-Economic Study and deals exclusively with the native communities. Part 1 assesses the project's impacts on the non-native communities. B.C. Hydro adopted this two-study approach in recognition of the uniqueness of the native communities and in response to timing considerations of the overall study process.

The geographic scope of this report includes those lands which encompass the proposed and alternative 5L46 routes shown on Figure 2 of Volume 1 of the overall Environmental Impact Assessment report. This area - the study area - is shown in detail on the 10 map sheets which comprise Volume 2 of the overall Environmental Impact Assessment report. Generally, the study area approximately parallels the proposed/alternative route corridor shown on Figure 1 on the following page.

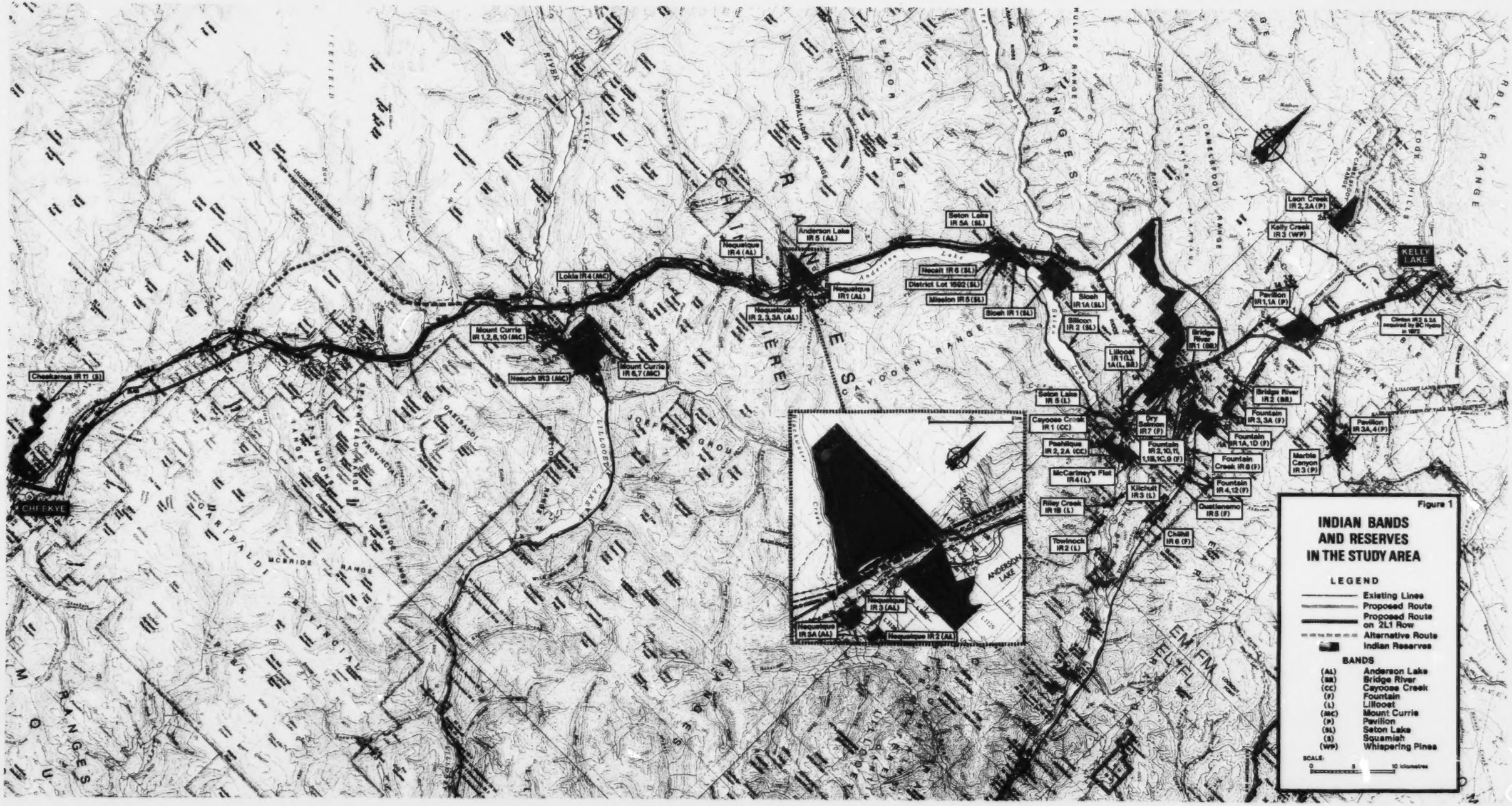
The topics discussed in this report include the following:

- Project Description - identification of the proposed and alternative routes and the characteristics of the construction and maintenance stages of the proposed transmission line
- Profile of Affected Bands - description of the affiliations, land holdings, population, community and economic characteristics, aspirations and other features of the affected Bands
- Assessment of Impacts - evaluation of the land use and socio-economic impacts resulting from B.C. Hydro's presence in the region
- Impact Mitigation - identification of the steps which can be taken to maximize the potential benefits and minimize the potential negative effects arising from the project

1.4 METHODOLOGY

This study relied heavily upon direct consultation with officials from the ten Bands in the study area. Meetings were held between the consultant and key informants such as Band Council and/or staff members. Structured survey instruments were not utilized. Rather, open-ended questions concerning anticipated project impacts on the Band's economic and cultural aspirations were posed to key Band informants. In addition, each Band's economic development potential was ascertained. A list of persons contacted is included as Appendix I.

It is important to note that many key informants were not prepared to reveal socio-economic information. For example, data regarding labour participation rates and numbers of people with specific career profiles were not made available. The general issues surrounding the native communities' special status, such as the impacts of the project on their traditional lands and the relationship of the project to their goals of economic self-sufficiency, self-government and self-determination were, however, clearly voiced.


Cheakamus IR 11 (S)
CHEKYE
Mount Currie IR 1,2,8,10 (MC)
Lakla IR 4 (MC)
Nequatque IR 4 (AL)
Anderson Lake IR 5 (AL)
Nequatque IR 1 (AL)
Nequatque IR 2, 3, 3A (AL)
Mount Currie IR 6,7 (MC)
Nesuch IR 3 (MC)
Seton Lake IR 5A (SL)
Necait IR 6 (SL)
District Lot 1602 (SL)
Mission IR 5 (SL)
Skoch IR 1 (SL)
Skoch IR 1A (SL)
Silicon IR 2 (SL)
Lillooet IR 1 (LL 1A (L, BR)
Seton Lake IR 5 (L)
Cayoose Creek IR 1 (CC)
Pashilqua IR 2, 2A (CC)
McCartney's Flat IR 4 (L)
Riley Creek IR 1B (L)
Townsock IR 2 (L)
Dry Gulch IR 7 (F)
Fountain IR 2, 10, 11, 1,1B,1C,9 (F)
Kitchuh IR 3 (L)
Chilihil IR 6 (F)
Questenemo IR 5 (F)
Fountain IR 1A, 10 (F)
Fountain Creek IR 8 (F)
Fountain IR 4,12 (F)
Bridge River IR 1 (BR)
Bridge River IR 2 (BR)
Fountain IR 3, 3A (F)
Leon Creek IR 2, 2A (P)
Kelly Creek IR 3 (WP)
KELLY LAKE
Pavilion IR 1, 1A (P)
Clinton IR 2 & 2A acquired by BC Hydro in 1972
Pavilion IR 3A, 4 (P)
Marble Canyon IR 3 (P)
Nequatque IR 3 (AL)
Nequatque IR 2A (AL)
Nequatque IR 2 (AL)
ANDERSON LAKE
GARIBALDI PROVINCIAL PARK
McBRIDE RANGE
LILLOOET RANGE
CAMERBOOT RANGE
BENDOR RANGE
CADWALLADER RANGE
RANGES
RIVER VALLEY
Figure 1
INDIAN BANDS AND RESERVES IN THE STUDY AREA
LEGEND
Existing Lines
Proposed Route
Proposed Route on 2L1 Row
Alternative Route
Indian Reserves
BANDS
(AL) Anderson Lake
(BR) Bridge River
(CC) Cayoose Creek
(F) Fountain
(L) Lillooet
(MC) Mount Currie
(P) Pavilion
(SL) Seton Lake
(S) Squamish
(WP) Whispering Pines
SCALE:
0 5 10 kilometres

It should also be noted that Band representatives do not perceive the impacts of the Kelly Lake - Cheekye project to be separate and distinct from those of other B.C. Hydro facilities in the study region. Therefore, in order to faithfully report this perception, this report discusses impacts associated with both existing B.C. Hydro facilities and the proposed Kelly Lake - Cheekye 500 kV transmission line.

The information acquired during the interviews has subsequently been supplemented by a variety of additional sources, including:

- community development plans and related information provided by the Bands
- population data obtained from Indian and Northern Affairs Canada (INAC)
- employment information supplied by the Bands and the Census of Canada
- mapping obtained from B.C. Hydro (1:5,000 and 1:50,000 scales)
- project characteristics derived from B.C. Hydro's Transmission Engineering Department
- right-of-way and land acquisition records obtained from B.C. Hydro's Properties Department

1.5 ACKNOWLEDGEMENTS

Several people contributed significantly to this report. They include representatives of each of the Bands contacted, as well as personnel from B.C. Hydro. As they are too numerous to mention here, these people are recognized in Appendix I.

2.1 INTRODUCTION

This section presents a summary description of the proposed Kelly Lake - Cheekye 500 kV transmission line project. The main features discussed are the phasing, timing, cost and manpower requirements associated with the construction stage, and the cost and manpower requirements of the maintenance stage. In addition, the proposed transmission line route and alternative routes identified by B.C. Hydro are discussed. Further details on each of these matters are provided in Part 1 of the Land Use/Socio-Economic Study, as well as in the overall Environmental Impact Assessment report.

2.2 TRANSMISSION LINE ROUTING

Following extensive analysis of a number of route options, B.C. Hydro identified a proposed route for the Kelly Lake - Cheekye transmission line as well as 4 route alternatives which involve the crossing of Reserves. The proposed and alternative routes are shown on Figure 1. It is only these proposed and alternative routes which are given detailed consideration in this report. The proposed route does not involve the crossing of Reserve lands. The alternative routes are those which would be utilized if agreement can be reached with four Bands to traverse their Reserve lands. B.C. Hydro recognizes the suitability of these alternative routes, especially as several of them are adjacent to transmission lines. Negotiations are currently underway between B.C. Hydro and all affected Bands in order to achieve right-of-way access along these alternative routes.

2.3 CONSTRUCTION STAGE

- Phasing

Project construction would involve a number of phases which occur in succession over each portion of the transmission line route. The key phases of construction are presented in Table 1.

TABLE 1

Phases of Transmission Line Construction

PHASE	ACTIVITIES
Clearing	Falling of trees and removal of logs, slash and vegetation
Dismantle Existing 2L1 Line (South of Shalalth)	Disconnection of conductors, dismantling of towers and removal of all cable and steelwork
Foundation Installation	Blasting, excavation, preparation of rock footings/grillages/piles, construction of guy anchors
Tower Erection	Assembly of subsections, transportation to tower sites and erection
Conductor Installation	Installation of insulators, stringing of conductors, installation of spacers and dampers
Right-of-Way Restoration	Recontouring of site and re-introduction of vegetation

- Timing and Cost

  Table 2 outlines the timing and estimated cost associated with each segment of project construction. The route has been separated into 20 km sections. The section names shown are intended only to indicate the general geographic area of the section and do not necessarily correspond with the route segments described in the overall Environmental Impact Assessment report.

- Workforce Requirements

  The estimated manpower requirements associated with each phase of the project are shown in Table 3. The final requirements will ultimately be determined by contractors who will be retained by B.C. Hydro to perform the work.

TABLE 2

KELLY LAKE - CHEEKYE 500 kV TRANSMISSION LINE PROJECT
TIMING AND ESTIMATED COST OF TRANSMISSION LINE CONSTRUCTION

SECTION[a]	KM	CONSTRUCTION YEAR						TOTAL ESTIMATED COST[b]						
		1[c]	2	3	4	5	6	1[c]	2	3	4	5	6	TOTAL
Kelly Lake	0 - 20	94	N/A	95	95	96	94 - 97	617,520	0	1,000,560	1,260,000	904,720	48,480	3,831,280
Pavilion	20 - 40	94	N/A	95	95	96	94 - 97	617,520	0	1,000,560	1,260,000	904,720	48,480	3,831,280
Bridge	40 - 60	94	N/A	95	95	96	94 - 97	1,157,850	0	1,876,050	2,362,500	1,696,350	90,900	7,183,650
Shalalth	60 - 80	94	93	95	95	96	94 - 97	926,280	1,504,000	1,500,840	1,890,000	1,357,080	72,720	7,250,920
D'Arcy	80 - 100	94	93	95	95	96	94 - 97	771,900	1,128,000	1,250,700	1,575,000	1,130,900	60,600	5,917,100
Gates	100 - 120	93	93	94	94	95	93 - 97	771,900	1,504,000	1,250,700	1,575,000	1,130,900	60,600	6,293,100
Pemberton	120 - 140	93	93	94	94	95	93 - 97	617,520	752,000	1,000,560	1,260,000	904,720	48,480	4,583,280
Green River	140 - 160	93	93	94	94	95	93 - 97	617,520	1,128,000	1,000,560	1,260,000	904,720	48,480	4,959,280
Whistler	160 - 180	93	93	94	94	95	93 - 97	771,900	752,000	1,250,700	1,575,000	1,130,900	60,600	5,541,100
High Cheakamus	180 - 200	93	93	94	94	95	93 - 97	849,090	752,000	1,375,770	1,732,500	1,243,990	66,660	6,020,010
TOTAL								7,719,000	7,520,000	12,507,000	15,750,000	11,309,000	606,000	55,411,000

NOTES: [a] Sections do not necessarily correspond with segments of proposed route described in Volumes 1 and 2 of E.I.A. Report
[b] Total Construction Costs include material and labour but do not include corporate overhead and interest during construction
[c] Phases: 1 - Clearing 3 - Foundation Installation 5 - Conductor Installation
2 - 2L1 Removal 4 - Tower Erection 6 - ROW Restoration

Source: Hydro Transmission Engineering Department

TABLE 3[d]

KELLY LAKE - CHEEKYE 500 kV TRANSMISSION LINE PROJECT
ESTIMATED CONSTRUCTION MANPOWER REQUIREMENTS

PHASE OF CONSTRUCTION	AVERAGE MANPOWER REQUIREMENTS[a]	TOTAL MANPOWER REQUIREMENTS[b]		PEAK MANPOWER REQUIREMENTS
		Man Hrs	Man Yrs	
1 - Clearing	115 man hours/ha	110,000	75	40
2 - 2L1 Removal	450 man hours/km	65,000	45	30 - 35
3 - Foundation Installation	300 man hours/km	60,000	40	95 - 100
4 - Tower Erection	450 man hours/km	90,000	60	155 - 160
5 - Conductor Installation	350 man hours/km	70,000	45	40
6 - ROW Restoration[c]	20 man hours/ha	———	—	
Total		395,000	265	

NOTES:

[a] Average manpower requirements obtained from B.C. Hydro Engineering Department.

[b] Total manpower requirements based on proposed route length of 200 km, clearing area of 950 ha and 2L1 removal length of 140 km.

[c] Total and peak manpower estimates for ROW restoration not available.

[d] Values rounded.

2.4 MAINTENANCE STAGE

Right-of-way maintenance involves ensuring the safety, security and efficient functioning of the transmission line and includes activities such as vegetation management. The maintenance stage will commence as soon as the project is brought into service. The cost and manpower requirements associated with right-of-way maintenance may be summarized as follows:

- the total cost over the 7 year maintenance cycle is estimated at $1,000,000. This translates into an average annual maintenance cost of $145,000.

- manpower requirements for maintenance are estimated at 3,000 man hours annually, which translates into 2 man years.

3.1 BANDS AND THEIR AFFILIATIONS

There are 10 Bands that hold reserve lands within the study area. These Bands, along with their historical and current affiliations, are listed in the following table. The extent of the Stl'atl'imx Nation Territory, within which 8 Bands are located, is shown on Figure 2. The High Bar Band, which has High Bar I.R. #2 located approximately 15 km northwest of the Kelly Lake substation (as shown on map sheets 1 East and West in Volume 2 of the overall Environmental Impact Assessment report) is not considered to be within the study area.

TABLE 4
Bands and their Affiliations

BAND	HISTORICAL AFFILIATIONS	CURRENT AFFILIATIONS	COMMENTS
Whispering Pines	Shuswap Nation	Shuswap Nation Tribal Council	No permanent residents in area; Band members located north of Kamloops
Pavilion Band	Stl'atl'imx Nation	Lillooet Tribal Council	
Fountain Band	Stl'atl'imx Nation	Lillooet Tribal Council	
Lillooet Band	Stl'atl'imx Nation	Lillooet Tribal Council	
Cayoose Creek	Stl'atl'imx Nation	Lillooet Tribal Council	
Bridge River	Stl'atl'imx Nation	Lillooet Tribal Council	
Seton Lake	Stl'atl'imx Nation	Lillooet Tribal Council	
Anderson Lake	Stl'atl'imx Nation	Independant Band	Withdrew from LTC in 1990; set up Coast Mtn. Dev. Corp. with other Bands for economic development
Mount Currie	Stl'atl'imx Nation	Independant Band	Works with LTC only on land claim matters
Squamish	Coast Salish Nation	Alliance Tribal Council	

Note: LTC - Lillooet Tribal Council

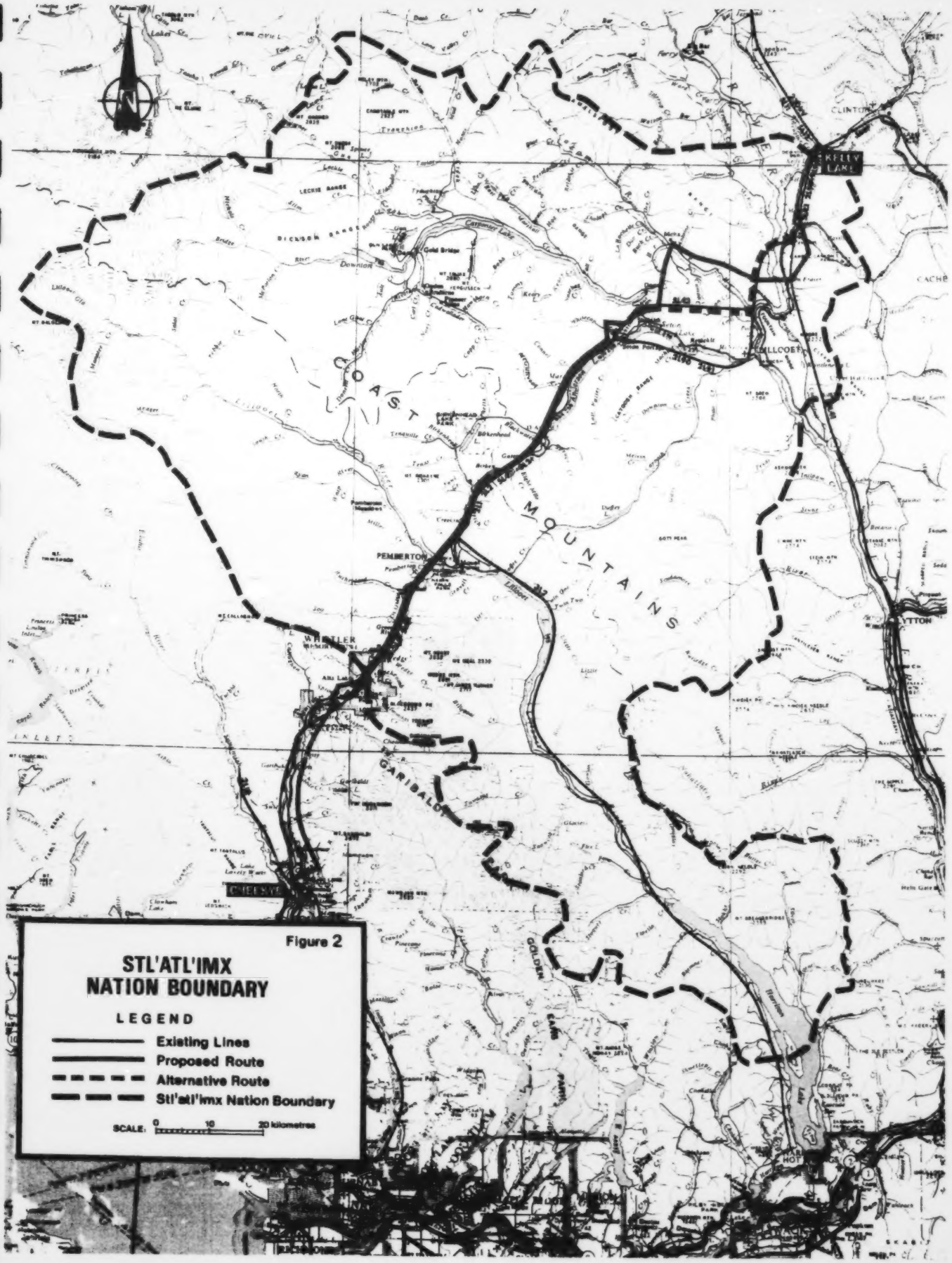


Figure 2
STL'ATL'IMX
NATION BOUNDARY
LEGEND
Existing Lines
Proposed Route
Alternative Route
Stl'atl'imx Nation Boundary
SCALE: 0 10 20 kilometres
COAST
MOUNTAINS
GARIBALDI
GOLDEN EARS
PEMBERTON
WHISTLER
LILLOOET
LYTTON
CLINTON
KELLY LAKE
CACHE
INLET

An important native organization in the study region is the Lillooet Tribal Council. In broad terms, the Lillooet Tribal Council serves a variety of functions for member Bands, including administration of a number of INAC programs (eg. economic development, education, various social programs), community planning, as well as cultural/heritage research and eduction.

Six Bands - Pavilion, Bridge River, Lillooet, Fountain, Cayoose Creek, Seton Lake - have chosen to associate under the umbrella of the Lillooet Tribal Council for the purpose of negotiating the acquisition by B.C. Hydro of a right-of-way which would utilize the alternative routes.

3.2 LAND HOLDINGS

.1 Reserves

As indicated in Table 5, all 10 study area Bands hold one or more Reserves. These Reserves are shown on Figure 1 above. Reserves traversed by existing B.C. Hydro transmission line rights-of-way are shown on Table 6. The extent of land occupied by transmission line rights-of-way is summarized in Table 7. Also shown on Table 7 are lands purchased by B.C. Hydro to accommodate generating stations, tunnels, canals and associated works.

As shown on Figure 1, no Reserves will be crossed if the proposed route is followed. Reserves which are traversed by alternative routes include:

- Pavilion I.R. #1 - Pavilion Band
- Bridge River I.R. #1 - Bridge River Band
- Seton Lake I.R. #5A - Seton Lake Band
- Nequatque I.R. #1 - Anderson Lake Band

.2 Traditional Lands

While detailed mapping of the lands utilized by the Bands and their predecessors is not available, it is understood that much of the study region falls within what the Bands consider to be traditional lands. Hunting, fishing, trapping, berry picking and a variety of other sustenance and cultural activities take place within these lands.

TABLE 5

Reserves Within Study Area

BAND	RESERVES
Whispering Pines	Kelly Creek I.R. #3[1]
Pavilion	Pavilion I.R. #1, #1A, #3A, #4
	Marble Canyon I.R. #3
	Leon Creek I.R. #2, #2A
Fountain	Fountain I.R. #1, #1A, #1B, #1C, #1D, #2, #3, #3A, #4, #9, #10, #11, #12
	Fountain Creek I.R. #8
	Dry Salmon I.R. #7
	Quatlenemo I.R. #5
	Chilhil I.R. #6
Lillooet	Lillooet I.R. #1, #1A (Reserve shared with Bridge River Band)
	Seton Lake I.R. #5
	McCartney's Flat I.R. #4
	Kilchult I.R. #3
	Riley Creek I.R. #1B
	Towinock I.R. #2
Cayoose Creek	Cayoose Creek I.R. #1
	Pashilqua I.R. #2, #2A
Bridge River	Bridge River I.R. #1, #2
	Lillooet I.R. #1A (Reserve shared with Lillooet Band)
Seton Lake	Seton Lake I.R. #5A
	Slosh I.R. #1, #1A
	Mission I.R. #5
	Necait I.R. #6
	District Lot 1592 (recently acquired)
	Silicon I.R. #2

Reserves Within Study Area (cont'd)

BAND	RESERVES
Anderson Lake	Anderson Lake I.R. #5
	Nequatque I.R. #1, #2, #3, #3A, #4
Mount Currie	Mount Currie I.R. #1, #2, #6, #7, #8, #10
	Nesuch I.R. #3
	Lokla I.R. #4
Squamish	Cheakamus I.R. #11[2]

[1] Whispering Pines Band holds additional Reserve land north of Kamloops
[2] One of 23 Reserves held by Squamish Band; others are outside study area

TABLE 6

Reserves Crossed by Existing Transmission Line Rights-of-Way

ROW	RESERVES CROSSED
2L1	Slosh I.R. #1, Seton Lake I.R. #5A, DL 1592
	Nequatque I.R. #1, Nequatque I.R. #4
	Lokla I.R. #4
	Cheakamus I.R. #11
2L2	Slosh I.R. #1, Seton Lake I.R. #5A
	Lokla I.R. #4
2L12	Cheakamus I.R. #11
2L90 and 2L91	Pavilion I.R. #1
	Fountain I.R. #3, #3A, #1A, #1B, #1C, #1D, #2, #10
	Bridge River I.R. #1
	Lillooet I.R. #1, #1A
	Slosh I.R. #1
3L2	Slosh I.R. #1, Seton Lake I.R. #5A, DL 1592
	Nequatque I.R. #1
	Mount Currie I.R. #6, #7
5L41	Pavilion I.R. #1
	Fountain I.R. #1A, #3, #4, #12
5L42	Pavilion I.R. #1
	Bridge River I.R. #1
	Seton Lake I.R. #5A
	Nequatque I.R. #4
60L20	Pavilion I.R. #1, #4
	Fountain I.R. #1, #1A, #1B, #2, #3, #3A, #10
	Lillooet, I.R. #1
	Cayoose Creek I.R. #1
	Silicon I.R. #2
Lillooet - Lytton ROW (Not Occupied)	Towinock I.R. #2
	Pashilqua I.R. #2

TABLE 7

Summary of Past Transactions with Study Area Bands

TRANSACTION	BAND										
	Whispering Pines (Clinton I.R. #2 & 2A)	Pavilion	Fountain	Lillooet	Cayoose Creek	Bridge River	Lillooet/ Bridge River	Seton Lake	Anderson Lake	Mt. Currie	Squamish
PURCHASE (Hectares)	580 1,200 (approx.)	----	----	29	24	----	----	186	----	----	----
ROW (Hectares) 2L1	----	----	----	----	----	----	----	18	5	1	4
2L2	----	----	----	----	----	----	----	31	----	2	----
2L12	----	----	----	----	----	----	----	----	----	----	75
2L90/2L91	----	31	50	21	----	2	17	----	----	----	----
3L2	----	----	----	----	----	----	----	28	1	42	----
5L41	----	45	31	----	----	----	----	----	----	----	----
5L42	----	26	----	----	----	14	----	9	0.5	----	----
60L20	----	9	16	0.5	2	----	----	10	----	----	----
Lillooet - Lytton ROW (Not Occupied)	----	----	----	2	5	----	----	----	----	----	----

Values Rounded

Source: B.C. Hydro Properties Division

3.3 POPULATION

Population characteristics for each of the Bands are summarized in Table 8.

TABLE 8

Population Characteristics

BAND	ON-RESERVE	OFF-RESERVE	TOTAL
Whispering Pines[1]	N/A	N/A	N/A
Pavilion	246	104	350
Fountain	363	302	665
Lillooet	159	88	247
Cayoose Creek	34	145	179
Bridge River	100	160	260
Seton Lake	208	259	467
Anderson Lake	92	98	190
Mount Currie	911	450	1,361
Squamish[2]	1,504	727	2,231

Source: Indian and Northern Affairs Canada

Notes: [1] Not applicable; no permanent residents in study region
[2] Approx. 50 Band members in study region (Cheakamus I.R. #11)

There are a number of demographic characteristics common to most of these Bands which must be mentioned. These characteristics were derived from community planning documentation provided by some of the Bands (i.e. Bridge River, Seton Lake) as well as by Band key informants. Important characteristics include:

- the age profile of residents is substantially younger than the provincial population. The present trend of high household formation rates is therefore expected to continue and possibly increase.

- the on-Reserve population of most Bands has been steadily increasing due to:

  - off-Reserve Band members returning to Reserve
  - formerly disenfranchised Band members regaining membership under the provisions of the Government of Canada's Bill C-31
  - high rate of household formation between on-Reserve Band members as well as between on-Reserve members and persons from elsewhere

These characteristics will result in continuing high demands for on-Reserve housing and other community facilities and services.

3.4 HOUSING AND COMMUNITY DEVELOPMENT

With the exception of the Whispering Pines Band, all Bands have provided housing and other community services for their members living on-Reserve within the study area. While the number of housing units found on any of the Band's Reserves obviously varies with on-Reserve population and other factors, each of the Bands has in the order of 50 - 100 housing units.

A number of factors must be noted concerning on-Reserve housing. These include:

- Condition of Housing Stock - in many cases, a significant proportion of the Band's housing stock is in need of repairs ranging from minor renovations to complete replacement.

- Overcrowding - large household sizes (i.e. 5 - 6 people) are not uncommon. While such a household size could be accommodated in a large dwelling unit, many of the occupied units are small, resulting in overcrowding.

- Demand for Additional Housing - as noted above, factors such as Bill C-31 returnees and high household formation rates have led to high demands for additional housing.

Those Band which have provided on-Reserve housing have also provided other community facilities to their members. The types of facilities provided include community halls, schools/daycares, recreation fields and facilities and infrastructure services (i.e. water supply, roads, fire protection).

3.5 ECONOMIC CHARACTERISTICS

The economies of the Reserve communities within the study area are based upon a variety of traditional and other activities. Traditional activities such as hunting, fishing, trapping and berry picking have and continue to comprise a significant part of native economic activity in the study area.

The general employment and occupation characteristics of the Bands are summarized below. As complete economic statistical information was not provided by the Bands during the interviews, the most up-to-date available Census data (1981) have been used to identify the following characteristics:

- Employment is concentrated in the primary (i.e. forest harvesting, agriculture, fishing), manufacturing and public administration sectors. This situation reflects the importance of resource-related activities to the Bands, as well as the amount of employment provided by Band institutions (i.e. management, administrative, clerical and other positions).

- A wide range of jobs are held by Band members. Once again, primary occupations in the forestry, agriculture, fishing and other primary industries are most prominent. Construction trades were also identified often as occupations, as were processing, service, clerical and technology/religion.

Another important economic characteristic of all of the Bands is their ability to access benefits which may result from B.C. Hydro activities. Comments on each of the Bands' characteristics which may assist them in accessing benefits are provided below.

- Whispering Pines

  Members of the Whispering Pines Band currently participate in a number of labourer-type occupations in the agriculture, forestry and construction industries. Several Band members are enrolled in courses including carpentry and business management. Recent economic development initiatives undertaken by the Band, including the development of a recreation vehicle park/lodge/restaurant facility, will broaden the employment skills and experience of Band members.

- Pavilion

  Approximately 10 members of the Pavilion Band are employed in Band functions ranging from Band management/administration to fire protection and Village maintenance. Another significant employer of Band members is the Continental Lime Plant, located between the communities of Pavilion and Cache Creek in the Marble Canyon. The Band is currently looking at the resources of the Marble Canyon area as a means to develop a marble extraction business. Band members

enrolled in various educational programs, including the University of Victoria's Aboriginal Government Program, hope to assist in identifying and developing Band initiatives.

- Fountain

The Fountain Band provides employment to approximately 35 of its members in Band ranching, forestry, maintenance and related activities. Senior skilled members of the Band are currently helping to train other Band members in the areas of house construction, fibreglass fabrication, agriculture and forestry. Band members are also employed in off-reserve industries, including forest product manufacturing in Lillooet and the Continental Lime Plant at Marble Canyon.

- Lillooet

A large number of Band members were employed as labourers at the Ainsworth Mill in Lillooet prior to recent lay-offs. While the mill has begun to recall some workers, a number remain unemployed. The Band itself employs 8 members, in a variety of clerical, administrative and maintenance capacities. A significant economic development initiative which the Band is currently examining involves developing a resort on Seton Lake.

- Cayoose Creek

Band administration and the Ainsworth Mill in Lillooet also supply the bulk of employment opportunities to members of the Cayoose Creek Band, with 5 people employed at the mill and 2 in the Band office. The unemployment rate is very high among on-reserve Band members.

- Bridge River

A forest clearing crew managed through the Band office provides employment to a variable number of Band members. The size of the crew fluctuates according to the amount of work secured and the seasons. The Band also owns some contracting equipment including a bulldozer, back hoe and dump truck. Ten Band members are employed at the Band's office. The Ainsworth Mill in Lillooet also provides some employment opportunities.

- Seton Lake

A construction crew managed and staffed by members of the Seton Lake Band has been active in providing various facilities and services (i.e. building houses, water storage reservoir construction) to the Band. Other Band members are employed in a variety of additional Band operations, principally those involved

with administration and management of the Band. Band representatives feel that Band members have the skills to provide a variety of services to B.C. Hydro including right-of-way clearing and maintenance, construction of tower foundations and provision of basic labour in support of B.C. Hydro activities in the area.

- Anderson Lake

The Anderson Lake Band has placed a great deal of emphasis on economic self-sufficiency as an essential first step toward becoming a community independant of Indian and Northern Affairs Canada. To this end, the Band has undertaken a number of economic development initiatives which provide employment opportunities to Band members. The D'Arcy Investment Corporation (DICOR) currently operates fish spawning/rearing facilities at D'Arcy and contracts to B.C. Hydro for transmission line right-of-way maintenance. Further initiatives being developed by DICOR include a new sawmill and a commercial complex (grocery store, restaurant and gas station). In association with 3 other Bands (Port Douglas, Skookumchuck and Samaquam) and the Sea to Sky Economic Development Commission, the Anderson Lake Band founded the Coast Mountain Development Corporation with the intention of identifying and pursuing new economic development prospects. Currently under consideration is a log home building venture.

- Mount Currie

Representatives of the Mount Currie Band have indicated to B.C. Hydro that they are prepared to provide contracted right-of-way slashing services to assist in the maintenance of existing B.C. Hydro transmission line rights-of-way and other facilities. In addition to stating an interest in supplying these services, Band representatives also stated that they would be interested in training in the areas of tree removal/topping/limbing and technical and trade fields such as electricians.

- Squamish

The designated spokesman of the Squamish Band on matters related to economic development, Chief Philip Joe, could not be reached for comment during the course of this study.

3.6 SOCIAL, ECONOMIC AND CULTURAL GOALS AND ASPIRATIONS OF THE BANDS

During the course of meetings with Bands in the study area, a number of goals were identified. The following list of Band goals and aspirations help to describe the local political and economic development context into which the proposed project will fit.

Achieve Economic Self-Sufficiency

Most Bands are determined to become economically self-sufficient and, in that process, break the ties of dependency with the Department of Indian and Northern Affairs Canada (INAC). Economic development initiatives, employment/job training and education have been identified as high priorities for most of the Bands.

Achieve Self-Governing Status

The Bands also aspire to govern their own affairs, once again leading to a breaking of ties with INAC. There are some differences between Bands as to the timing and strategy for achieving the goal of self-government, but their overall aims are similar.

Achieve Control Over Traditional Territories

In striving to achieve the goals of self-sufficiency, self-determination, and self-government, a large segment of the native community is determined to consolidate control/jurisdiction over traditional territories. The Chiefs of a number of Bands in the Lillooet Nation (Pavilion, Fountain, Lillooet, Cayoose Creek, Bridge River, Seton Lake, and Mount Currie) are working together toward establishing a territorial claim over the traditional STL'ATL'IMX Nation territories. The particulars of these initiatives were not researched as part of this study. It is known, however, that a formal claim has not yet been submitted.

Not all Bands are in agreement on strategy and timing for territorial claims. For example, the Anderson Lake Band intends to work gradually toward resolving land claims (after the goals of economic self-sufficiency and effectively managing their own affairs are achieved). In contrast, the Mount Currie Band is placing a great deal of emphasis on satisfactorily resolving territorial claims as the essential first step toward achieving their goal of self-determination and self-government.

Resolve Housing Shortages

One of the most serious problems facing each of the Bands is a serious shortage of housing, with the prospect of continuing high demands for new housing persisting over the next 10 to 20 years. In many cases, the demand for new units over the next 10 years exceeds the entire present housing stock.

The most serious obstacle to resolving these shortages is a chronic shortage of funding. For some Bands, a scarcity of land suitable for development further compounds a housing shortage problem.

Improve Education Levels

The Bands in the study area are strongly committed to education as a means of better preparing younger Band members for the future. Education is considered essential to achieving the broader long-term goals of self-sufficiency and self-determination. Education initiatives and plans include:

- encouraging students to complete high school
- encouraging high school graduates to go on to post-secondary education
- employing education workers in Band offices
- building their own on-Reserve school (eg. Seton Lake Band)
- providing traditional language and cultural education
- providing basic education for drop-outs
- participating in various government employment and vocational training programs

4.1 INTRODUCTION

This section provides an assessment of the land use and socio-economic impacts which would result from B.C. Hydro's development of the Kelly Lake - Cheekye 500 kV transmission line project. In addition, comments related to B.C. Hydro's past and continuing presence in the study area are provided. This presence is manifested in the form of transmission lines, dams, reservoirs, generating stations and other facilities. Because the effects of B.C. Hydro's presence figured prominently in many of the discussions with Band representatives, the consultant felt it was necessary to report on these existing impacts.

As many of the land use and socio-economic impacts identified are common to most Bands throughout the study area, each of the following sub-sections begins with a discussion of general impacts. Following this, the land use and socio-economic impacts specific to individual Bands are described.

4.2 LAND USE IMPACTS

General Land Use Impacts

- Occupation of Developable Lands

  Transmission lines occupy considerable areas of Reserve lands which could be committed to other uses. As noted above, the demand for housing among the Bands within the study area is quite strong. Due to the physical characteristics of the region in general, and many Reserves in particular, developable land characterized by gentle slopes, appropriate soil conditions, proximity to existing Reserve communities and other factors is a highly valued resource for accommodating these housing needs. Therefore, the utilization of such lands for transmission lines is considered to be a significant negative impact on housing development. It should be noted, however, that unused developable lands are available on several Reserves.

- Relationship of Proposed Transmission Line to Traditional Land Claims

  It is too early in the land claims resolution process to comment on how transmission line right-of-way land tenure will ultimately be affected by claims.

However, B.C. Hydro in its negotiations with Bands concerning right-of-way access has stated that any agreements will be without prejudice to the resolution of land claims.

Land Use Impacts Associated with Existing Facilities

Table 9 summarizes the impacts of existing B.C. Hydro facilities on developable Reserve lands held by Bands with the study area. A more detailed list of developable land occupied by B.C. Hydro facilities on each of the Bands' Reserves is presented in Appendix II.

TABLE 9

Developable Area of Study Area Reserves Occupied by Existing B.C. Hydro Facilities

BAND	DEVELOPABLE AREA OF RESERVES[1] (Hectares - approx.)	DEVELOPABLE AREA OCCUPIED BY B.C. HYDRO FACILITIES[2] (Hectares - approx.)
Whispering Pines	0	0
Pavilion	300	10
Fountain	690	14
Lillooet	316	5
Cayoose Creek	115	1
Bridge River	180	5
Seton Lake	220	16
Anderson Lake	205	6
Mount Currie	1,105	5
Squamish	1,150	80

NOTES: [1] Kelly Creek I.R. #3 and Cheakamus I.R. #11 only Whispering Pines and Squamish (respectively) Reserves included.

[2] B.C. Hydro facilities considered include major occupied transmission line rights-of-way, generating stations, canals and associated works.

Land Use Impacts Associated with Proposed Route

The proposed route for the Kelly Lake - Cheekye 500 kV transmission line does not traverse Reserve lands. Therefore, there are no direct land use impacts associated with the proposed route.

Land Use Impacts Associated with Alternative Routes

Building the 5L46 transmission line along any of the four alternative routes would involve the crossing of Reserve lands. The specific land use impacts of these alternative routes are summarized in Table 10. With respect to the Pavilion and Bridge River Bands, it should be noted that developable lands exist elsewhere on these Bands' Reserves.

TABLE 10

Land Use Impacts of Alternative 5L46 Routes on Reserve Lands

ALTERNATIVE[1] (Route Nodes)	RESERVES CROSSED		LAND REQUIRED (ha - approx.)	IMPACTS
	Reserves	Band		
Pavilion (WCEF1)	Pavilion I.R. #1	Pavilion	30	▸ occupation of land suitable for development in northeast corner of Reserve
Pavilion/Mission (F1FG)	Bridge River I.R. #1	Bridge River	20	▸ occupation of approx. 5 ha of land suitable for development
Anderson (G1G2)	Seton Lake I.R. #5A	Seton Lake	15	▸ no significant impacts
Crossing of Nequatque I.R. #1	Nequatque I.R. #1	Anderson Lake	2	▸ no significant impacts

[1] Alternatives and route nodes are more fully described in Part 1 of the Land Use/Socio-Economic Study

4.3 SOCIO-ECONOMIC IMPACTS

General Impacts of Existing Facilities

The discussion of general socio-economic impacts presented below deals with the effects that existing B.C. Hydro facilities have had on Bands within the study area.

- Impacts of Existing B.C. Hydro Facilities on Resources

The construction of transmission lines, dams, generating stations, access roads and other facilities throughout the study area by B.C. Hydro and its predecessors has had significant impacts on the region's natural resources (i.e. wildlife, fish, berries, etc.). As previously discussed, these resources support the Bands' traditional economic activities. Specific impacts are outlined as follows:

- degradation of fisheries due to construction of the Terzhagi Dam, diversion of Bridge River and creation of Carpenter Lake Reservoir
- loss of wildlife habitat and consequently hunting and trapping opportunities as a result of the creation of the Carpenter Lake Reservoir
- increased access to wildlife habitat resulting from transmission line rights-of-way which in turn has led to increased hunting pressure. Trespass and poaching by non-native people on Band Reserve and traditional lands is a significant problem. In addition, there is concern that increased access has led to the spread of noxious weeds (i.e. knapweed)
- possible contamination of herbs and berries and possibly higher-order consumers (i.e. game) as well as water supplies by herbicides used for vegetation control on transmission line rights-of-way in the past

- Business and Employment Opportunities Originating from Existing B.C. Hydro Facilities

Band officials who were contacted expressed considerable interest in securing business and employment opportunities with B.C. Hydro. As noted previously in Section 3.5, Band members have the skills and experience to participate in a variety of construction and maintenance activities. In past years, many Band members worked on B.C. Hydro construction projects. This work was short-term in nature. The Band members perceived that these are the only opportunities available, and generally view B.C. Hydro as a 'closed shop' which is not prepared to hire, train and make a commitment to Band members on a long-term basis.

In more general terms, there exists a widespread perception among Band officials that there has been a lack of effective communication on a wide variety of issues of great importance to the Bands. One of these issues is the lack of potential business opportunities, such as supplying services, related to B.C. Hydro facility construction and maintenance.

Other concerns include:

- the perception that B.C. Hydro has not been cooperative in working with the Bands to facilitate their community development initiatives (i.e. relocating poles at reasonable cost to accommodate new development)

- the resentment felt by many Band members towards B.C. Hydro's or its predecessors' past approach to negotiations and business dealings. Examples include the conclusion of original ROW agreements between B.C. Hydro and INAC without Band involvement and the uncertainty surrounding expired and/or unused rights-of-way. Most Bands are prepared to deal with B.C. Hydro in an honest and straightforward manner providing B.C. Hydro is willing to deal with them in good faith.

▸ Compensation for Use of Reserve Land by B.C. Hydro

Most of the Band representatives contacted were aware of B.C. Hydro's contributions to local governments in B.C. through grants in-lieu of taxation and other mechanisms. As directed by a provincial Order-in-Council, B.C. Hydro makes payments to municipalities and to the provincial government for rural areas. The Bands felt that they should receive this same consideration. Revenues generated as a result of receiving compensation from B.C. Hydro for the use of Reserve lands could be utilized for a variety of community development purposes.

▸ Benefits of Presence of Existing Facilities

Bands within the study area have received benefits from B.C. Hydro in the form of compensation for rights-of-way and timber values. Moreover, B.C. Hydro rights-of-way have opened up lands suitable for grazing cattle, and the Hiline road has provided access from Shalalth/Seton Portage to D'Arcy along Anderson Lake. In addition, the D'Arcy Investment Corp. (DICOR), in which the Anderson Lake Band participates, has made arrangements with B.C. Hydro to undertake right-of-way maintenance.

Impacts of Proposed Transmission Line on Individual Bands

The following section describes the socio-economic impacts which the Kelly Lake - Cheekye project may have on each of the Bands whose representatives were able to be contacted. The general impacts discussed above with respect to B.C. Hydro's existing facilities in the study region are also relevant to the impacts of the Kelly Lake - Cheekye project noted below.

- Whispering Pines

  Socio-economic impacts of the project are limited to potential economic benefits. The Whispering Pines Band is interested in pursuing employment opportunities associated with the construction and maintenance of the project. In addition, the Band would like to explore the possibility of developing a small generating project near the Kelly Lake substation for integration with B.C. Hydro's grid system.

- Pavilion

  The main road through the Village (gravel road leading north from Highway 12) will be used to access the northern-most portions of the proposed Kelly Lake - Cheekye project. Concerns related to use of this road by construction traffic include safety of residents, dust control, and general disruption of vehicular and pedestrian traffic.

  Representatives of the Pavilion Band stated their keen interest in obtaining long-term employment opportunities with the project and other B.C. Hydro activities in the area. While the Band may be interested in short-term employment associated with construction of the project, this desire is secondary to the longer-term objective. Sincere efforts to provide more stable, long-term opportunities for the Band would do much to reduce their frustration with B.C. Hydro resulting from past experience.

- Fountain

  The socio-economic concerns raised by representatives of the Fountain Band are encompassed under the discussion of general impacts above and relate to existing facilities. These concerns are related primarily to resource/environmental impacts on Reserve lands due to existing transmission lines and the use of herbicides on B.C. Hydro rights-of-way.

- Lillooet

The availability of employment, economic development, training/education and related opportunities resulting from construction and maintenance of the project are impacts which may be felt by the Lillooet Band. Band representatives see the project as a source of long-term opportunities which will assist in realizing community economic development goals.

- Cayoose Creek

All socio-economic concerns identified by representatives of the Cayoose Creek Band are embodied within the previous discussion of general impacts and relate to existing facilities. Principal among these is the Band's desire to re-examine existing ROW and easement agreements.

- Bridge River

The road paralleling the Bridge River through the Bridge River Indian Reserve #1 is the main access between Lillooet and Shalalth/Seton Portage and therefore will be used during construction. While little development exists along this road, it is used extensively by Band members. Relevant concerns may include general traffic disruption and dust control in certain areas.

The Bridge River Band representatives expressed considerable interest in silviculture and related forestry activities and, as such, are interested in pursuing clearing and vegetation management activities associated with project construction and maintenance. Band representatives stressed their desire to see long-term opportunities evolve and that these be integrated with training/education initiatives.

- Seton Lake

Traffic is also a concern in Shalalth/Seton Portage area. There are two areas where traffic issues may arise. The first is along the steep, windy hill leading down from Mission Ridge towards Slosh I.R. #1. This is the main access road into the Shalalth/Seton Portage area, which may lead to traffic disruptions due to slow-moving construction vehicles. The second area of concern is through the populated portions of the Seton Lake Indian Band's reserves west of the powerhouse. Relevant issues in these populated areas will include resident safety, traffic congestion, and dust control in some locations.

Representatives of the Seton Lake Band see a variety of opportunities originating from the project, as well as other B.C. Hydro activities in the area. In accordance with their broad objective of participating more fully in B.C. Hydro

activities, Band members wish to secure employment in the construction and maintenance of the project. Furthermore, Band officials feel that the Band can provide goods and services to B.C. Hydro (i.e. basic food, fuel and related items, accommodations, camp sites). The Band representatives hope that the pursuit of these opportunities will occur in a way that strengthens the relationship between themselves and B.C. Hydro.

- Anderson Lake

Construction traffic accessing the Hiline road will move through the D'Arcy area. Traffic congestion and resident safety are relevant concerns in this area.

Representatives of the Anderson Lake Band stated their keen interest in securing a long-term contract to maintain various B.C. Hydro rights-of-way (including the proposed 5L46) in the vicinity of D'Arcy. The Band representatives feel that this would enhance linkages between their various economic development initiatives (i.e. D'Arcy Investment Corporation, Coast Mtn. Development Corporation, forest management initiatives) and B.C. Hydro's operating units. Further contract and employment opportunities originating from B.C. Hydro's activities would do much to help the Band pursue their goal of economic self-sufficiency.

- Mount Currie

The Pemberton-Portage Road connecting D'Arcy with Pemberton traverses through the old Mount Currie Indian Band Village. Issues related to the movement of construction crews and equipment through the Village include safety of residents, and traffic congestion/disruption due to increased volumes.

Discussions with Band officials revealed that the Band is unwilling to enter into business dealings with third parties (i.e. B.C. Hydro) until a land claim has been settled with the provincial government.

- Squamish

Socio-economic impacts of the project on the Squamish Band could not be assessed as it was not possible to arrange a meeting with the Band spokesperson during the course of this study.

5.1 INTRODUCTION

A number of steps may be taken by B.C. Hydro to maximize the benefits and minimize the negative effects associated with the construction of 5L46 and B.C. Hydro's on-going activities in the study area. The intent of this section is to outline these steps. First, however, the objectives of B.C. Hydro and the native communities are clearly articulated. The subsequent parts of this section outline the general recommendations applicable for most or all Bands in the study area, followed by Band-specific recommendations.

5.2 OBJECTIVES OF B.C. HYDRO AND THE NATIVE COMMUNITIES

- B.C. Hydro
  - to enable construction of the proposed 5L46 transmission line in an efficient and cost-effective manner
  - to minimize or eliminate detrimental environmental, social and economic impacts arising from construction and operation of the transmission line project
  - to improve corporate relations over the long-term with individual study area Indian Bands in particular and native communities in general
  - to generate socio-economic benefits, where feasible, to both the native and non-native communities in the study area as a result of B.C. Hydro's significant presence in the area

- Native Communities
  - to establish better business relations with B.C. Hydro, featuring improved communications and a prevailing attitude of trust and good will towards B.C. Hydro
  - to deal with B.C. Hydro in such a way that the Company understands the special status of the native communities - their status as a people, their government structure, the status of their Reserve lands, their claims to traditional territories, as well as the economic, cultural and spiritual significance of these traditional territories

- to deal with B.C. Hydro in such a way that the company gains an appreciation of the Bands' goals and aspirations to become independent communities (i.e. free of ties of dependency with the Federal Department of Indian and Northern Affairs)
- to ensure that the natural environment throughout the project area is protected and, where possible, enhanced during the construction and operations phases of the project
- to realize the long-term economic and employment benefits that can result from B.C. Hydro's significant presence in the region
- to gain compensation for past impacts

5.3 GENERAL RECOMMENDATIONS

Ongoing Consultations and Communications

The long-term success of most of the specific recommendations set out in this section will depend on more effective two-way communication between B.C. Hydro and the native communities. In addition, such communication is vital in the short-term as it will foster an enhanced relationship between the Bands and B.C. Hydro with respect to the Kelly Lake - Cheekye project. Initiatives to achieve this can include:

- Native Relations Personnel on B.C. Hydro Staff

  B.C. Hydro should follow through with its plans to bring on staff a core group of individuals with a mandate to deal with native communities. For these individuals to be effective, it is essential that they spend a significant share of their time in the field, getting to know the native people and native issues.

- Coordination Within B.C. Hydro

  The general public, including native communities, do not appreciate the division of responsibilities within B.C. Hydro's various departments. It is therefore important that business dealings and contacts with individual Bands be well coordinated within the Environmental Resources, Government and External Affairs, Properties, Production, Customer Services and other divisions within the Corporation.

Route Selection for Proposed 5L46 Transmission Line

In order to maintain and enhance credibility within the native communities, B.C. Hydro should continue to attempt to secure the generally favoured route (i.e. the proposed route utilizing the 4 alternatives). This route in large measure follows an existing transmission line corridor and crosses four Indian Reserves. For a variety of important reasons (i.e.

severity of resource/environmental impacts, crossing of traditional territories, visual impacts) the Bands are strongly opposed to parts of the proposed route which bypasses the Reserves.

B.C. Hydro has indicated the entire proposed route will only be pursued if agreement cannot be reached with Bands concerning right-of-way access across reserves belonging to the Pavilion, Bridge River, Seton Lake and Anderson Lake Bands. Negotiations are currently underway between B.C. Hydro and all affected Bands in order to acquire transmission line rights-of-way across Reserves.

In the current process of negotiations, it is important that deadlines be realistic, with allowance for due process to take place within the native communities. As long as progress is being made in the negotiation process, B.C. Hydro should be willing to maintain a considerable degree of flexibility in adjusting deadlines.

Access to Business and Employment Opportunities

- Staff Employment Opportunities

  B.C. Hydro should address the widely held perception in the native communities that it is not prepared to offer members of those communities employment opportunities with the company. For example, information about the Company's evolving native internship program could be more widely disseminated.

- Contractor Selection Process for Project Contracts

  B.C. Hydro should be prepared to change its traditional contractor tendering procedures and policies. More flexibility and creativity will be required if the goal of generating economics benefits within the local communities directly affected by B.C. Hydro activities is to be realistically achieved.

  Contracting policies should include the following areas:

  . Ability to give preference to the local community-based small private contractors. The local community would have to be defined, but should include both the native and non-native communities within a specified radius of the work area (for example, 100 km)
  . Flexibility in timing of work to allow for seasonal variations in other activities or employment opportunities in the region (thereby balancing local workloads throughout the year)
  . Criteria for selection of contractors other than the "lowest bid"

- More direct involvement by B.C. Hydro staff in working with the community-based small contractors throughout all stages of the tendering and construction process - the team approach rather than an adversarial relationship which often accompanies the traditional competitive tendering process

In developing a new contractor selection process for project contracts, B.C. Hydro should involve leaders of the native communities to ensure that their concerns are being addressed.

B.C. Hydro as a Catalyst - Opportunities With Other Agencies

Through the experience and skill development provided by fulfilling contracts with B.C. Hydro, native and non-native community-based contractors will be better positioned to provide similar contracting services to other agencies. B.C. Rail, the Federal Government (eg. Department of Fisheries and Oceans), Provincial Ministries (eg. Ministry of Forests, Ministry of Transportation and Highways, Ministry of Environment), the Squamish - Lillooet Regional District, local municipalities, as well as private resource companies (eg. forestry, mining, tourism) may all benefit from contract services provided by community-based contractors.

As a Crown agency of the Province, B.C. Hydro should further investigate the facilitative role it might play in helping communities achieve economic development objectives. Although B.C. Hydro's role in this capacity would only be during the initial project stages for a short period, an initiative of this nature would certainly enhance B.C. Hydro's corporate image in the study area.

Measures to Limit Public Access

In consultation with native leaders, B.C. Hydro should devise measures aimed at restricting public access to Indian Reserve lands or other traditional hunting areas that are crossed by transmission lines. This would help reduce hunting pressures on limited game resources in the areas where native people have traditionally hunted.

Reevaluate Use of Herbicides for Vegetation Control

Since the use of herbicides for vegetation control on the transmission line ROW's is such a serious concern of Band representatives, B.C. Hydro should, again in cooperation with the native leaders, continue to reevaluate their present practices and continue to consider other options for vegetation control.

Compensation for Use of Reserve Lands

B.C. Hydro should work with area Bands, Indian and Northern Affairs Canada and other relevant agencies in evaluating the feasibility of providing compensation to Indian Bands in a manner similar to that presently applied to municipalities and regional districts. Considerations of equity would suggest that this would be justified taking into account the impact of B.C. Hydro facilities on Reserve lands.

5.4 BAND-SPECIFIC RECOMMENDATIONS

Land Use Impacts

If the 5L46 project utilizes any of the four alternative routes, measures which may be taken to reduce potential land use impacts include minimizing right-of-way and clearing requirements, carefully placing towers to avoid disrupting existing and future land uses and ensuring prompt repair of any damage caused to private property (i.e. excavations, fences disrupted). Further impact mitigation recommendations pertaining to the effects of the proposed 5L46 project as well as those associated with existing facilities are presented below.

- Pavilion Band

  In response to the Band's request, assess the feasibility of locating the proposed 5L46 transmission line on the west side of the existing corridor rather than the east side.

- Fountain Band

  Assess the feasibility of relocating sections of the existing transmission lines 2L90 and 2L91 where they are occupying prime developable land. Approximately 15 - 20 hectares of land which the Band feels is suitable for development is occupied by the 2L90/2L91 right-of-way.

- Bridge River Band

  Take extra care in the detailed planning of the new line alignment and tower placement (along the existing corridor) in order to minimize the potential impact of the new line on lands with development potential. The route should be reviewed with the Band during a field visit before it is finalized.

- Lillooet Band

  Assess the feasibility of relocating sections of 2L90 and 2L91 where they are occupying developable land and impairing the orderly and efficient expansion of the community.

- Seton Lake Band

  Release 2L1 right-of-way on Reserves to the Band when the existing line is dismantled.

  Assess the feasibility of relocating segments of 3L2 and 2L2 transmission lines where they cross the developable area identified as Skiel Mountain development cell on Slosh I.R. #1.

- Anderson Lake Band

  Release 2L1 ROW through Nequatque I.R. #1 when the existing line is dismantled.

- Mount Currie Band

  Consult further with the Band regarding the potential implications of line routing in the vicinity of Indian Reserve #4 (Lokla). Arising from these consultations hopefully will be a better appreciation for the nature and significance of the traditional cultural values of this place.

- Squamish

  Release 2L1 ROW through Cheakamus I.R. #11 when the existing line is dismantled.

Socio-Economic Impacts

Additional investigation is required in order to integrate the opportunities originating from construction and maintenance of the project, and those related to existing B.C. Hydro facilities in the area, with each Band's capabilities. The comments provided in Section 3.5 on each Band's ability to access benefits should be considered when more detailed project information (i.e. clearing methods to be utilized along the entire 5L46 route) is available.

To date, B.C. Hydro has sponsored contracting workshops in Lillooet and Pemberton to which representatives of all Bands in the vicinity of the route were invited. The workshops identified contract opportunities associated with current B.C. Hydro activities. The content and delivery of the workshops will be further refined in anticipation of a further series of workshops that will be held if the project is approved and when a construction schedule is finalized. It is recommended that if significant B.C. Hydro administrative time is necessary to facilitate the participation of Bands in the project tendering process, that this be allowed for in the project budget.

The most potentially significant negative impact associated with the project would be the inability of the Bands in the study region to participate in the project in a meaningful way. To mitigate this potential negative impact, B.C. Hydro must recognize that, as a cost of doing business, considerable effort will be required to develop project contracts that reflect each Band's capabilities.

Impact mitigation measures are also necessary to address traffic impacts. Appropriate measures include:

- ongoing communication between B.C. Hydro (and its contractors) and Bands. Posting notices of crew and equipment movement, traffic slow-downs and road closures in Band offices, as well as public radio announcements through regular Ministry of Transportation and Highways bulletins, are important steps in maintaining communication

- grading and dust control on gravel roads in the Pavilion Village and Shalalth/ Seton Portage areas, as well as along the Bridge River road

- inclusion of special provisions in construction contracts to post extra signage in residential areas, station flag persons at key locations, and emphasize the fact that construction traffic violating regulations will be penalized

- instituting a driver awareness program which emphasizes the importance of obeying signage, taking extra care through populated areas and being courteous to residents

- ensuring communication with the provincial Ministry of Transportation and Highways respecting the movement of heavy/wide/long loads along public roads

5.5 SUMMARY

The Kelly Lake - Cheekye transmission line proposal represents a potentially significant project within the study area. While installation of the transmission line may result in some negative impacts on the land and resources of the region, many benefits may originate from the project. This would be especially the case if the proposed route incorporating the four alternative routes identified by B.C. Hydro was chosen. The Bands that have been consulted are in support of this direction, but only if a variety of initiatives which B.C. Hydro may take to redress outstanding issues and foster a continuing relationship of trust and good will are implemented.

APPENDIX I

CONTACTS

APPENDIX I

CONTACTS

Whispering Pines Band (April 9, 1991)

- Chief Richard LeBourdais

- John Dumbrell, Planning Consultant
- follow-up phonecall, July 19, 1991

Pavilion Indian Band (March 14, 1991 and March 19, 1991)

- Chief Marvin Bob (outgoing)
- Councillor Harriet McDonald
- Councillor Desmond Peters Jr.
- Band Manager Sharon Edwards

- Gordon Petersen, Principal and Senior Consultant
- follow-up phonecall, July 18, 1991

Fountain Band (March 13, 1991)

- Councillor/Band Manager Pauline Mitchell
- Councillor Isaac Adolf

- Gordon Petersen, Principal and Senior Consultant
- follow-up phonecall, July 19, 1991

Lillooet Band (March 13, 1991)

- Band Manager Doreen Whitney

- Gordon Petersen, Principal and Senior Consultant
- follow-up letter from Band expressing further concern
- follow-up phonecall, July 19, 1991

Cayoose Creek Band (March 14, 1991)

- Band Manager Trudy Redan

- Gordon Petersen, Principal and Senior Consultant
- follow-up phonecall, July 18, 1991

Bridge River Band (March 14 1991)

- Councillor/Band Manager Bradley Jack

- Gordon Petersen, Principal and Senior Consultant
- follow-up phonecall, July 19, 1991

Seton Lake Band (March 19, 1991)

. Chief Rod Louie	. Gordon Petersen, Principal and Senior Consultant
. Councillor Herb Patrick	. follow-up phonecall, July 19, 1991
. Councillor Theresa Oleman	
. Councillor Gary John	

Anderson Lake Band (April 11, 1991)

. Chief Art Thevarge (outgoing)	. Gordon Petersen, Principal and Senior Consultant
. Councillor/Band Manager Harry O'Donaghey	. Kevin Graeme, B.C. Hydro External Relations
. Councillor Bruce Thevarge	. follow-up phonecall, July 18, 1991

Mount Currie Band (April 11, 1991)

. Band Manager Ray Pierre	. Gordon Petersen, Principal and Senior Consultant
	. Kevin Graeme, B.C. Hydro External Relations
. Joanne Wells, Economic Development Officer	. follow-up phonecall, July 19, 1991
	. response to B.C. Hydro Contracting Opportunities Workshop Survey

Squamish Band

. It was not possible to arrange a meeting or conversation with Chief Philip Joe during the course of this project

Lillooet Tribal Council (March 13 - 14, 1991)

. Romeo De la Pena, Community Planner	. Gordon Petersen, Principal and Senior Consultant
. Franklin Ledoux, Economic Development Officer	. follow-up phonecall, July 19, 1991

APPENDIX II

DEVELOPABLE AREA OF STUDY AREA RESERVES OCCUPIED BY B.C. HYDRO FACILITIES

DEVELOPABLE AREA OF STUDY AREA RESERVES OCCUPIED BY B.C. HYDRO FACILITIES

BAND	RESERVE	DEVELOPABLE AREA OF RESERVE[1] (Hectares - approx.)	DEVELOPABLE AREA OCCUPIED BY B.C. HYDRO FACILITIES[2] (Hectares - approx.)	FACILITIES
Whispering Pines	Kelly Creek I.R. #3[3]	0	0	
Pavilion	Pavilion I.R. #1	125	10	5L41, 5L42,
	Pavilion I.R. #1A	15	0	2L90/91
	Pavilion I.R. #3A	0	0	
	Pavilion I.R. #4	25	0	
	Marble Canyon I.R. #3	115	0	
	Leon Creek I.R. #2	20	0	
	Leon Creek I.R. #2A	0	0	
			0	
Fountain	Fountain I.R. #1	80	0	
	Fountain I.R. #1A	0	0	
	Fountain I.R. #1B	55	5	2L90/91
	Fountain I.R. #1C	10	1	2L90/91
	Fountain I.R. #1D	10	3	2L90/91
	Fountain I.R. #2	35	1	2L90/91
	Fountain I.R. #3	70	3	2L90/91
	Fountain I.R. #3A	15	0	
	Fountain I.R. #4	60	0	
	Fountain I.R. #9	10	0	
	Fountain I.R. #10	20	1	2L90/91
	Fountain I.R. #11	0	0	
	Fountain I.R. #12	20	0	
	Fountain Creek I.R. #8	5	0	
	Dry Salmon I.R. #7	0	0	
	Quatlenemo I.R. #5	100	0	
	Chilhil I.R. #6	200	0	
Lillooet	Lillooet I.R. #1	75	5	2L90/91
	Lillooet I.R. #1A[4]	0	0	
	Seton Lake I.R. #5	1	0	
	McCartney's Flat I.R. #4	165	0	
	Kilchult I.R. #3	25	0	
	Riley Creek I.R. #1B	10	0	
	Towinock I.R. #2	40	0	
Cayoose Creek	Cayoose Creek I.R. #1	80	1	power canal
	Pashilqua I.R. #2	35	0	
	Pashilqua I.R. #2A	0	0	

DEVELOPABLE AREA OF STUDY AREA RESERVES OCCUPIED BY B.C. HYDRO FACILITIES (cont'd)

BAND	RESERVE	DEVELOPABLE AREA OF RESERVE[1] (Hectares - approx.)	DEVELOPABLE AREA OCCUPIED BY B.C. HYDRO FACILITIES[2] (Hectares - approx.)	FACILITIES
Bridge River	Bridge River I.R. #1	170	5	5L42
	Bridge River I.R. #2	10	0	
	Bridge River I.R. #1A[4]	0	0	
Seton Lake	Seton Lake I.R. #5A	0	0	- penstocks/
	Slosh I.R. #1	145	15	powerhouse/
	Slosh I.R. #1A	0	0	- 2L90/91, 2L1,
	Mission I.R. #5	30	0	2L2, 3L2,
	Necait I.R. #6	25	0	trans. lines
	District Lot 1592	15	1	2L1
	Silicon I.R. #2	5	0	
Anderson Lake	Anderson Lake I.R. #5	0	0	
	Nequatque I.R. #1	175	5	2L1
	Nequatque I.R. #2	5	0	
	Nequatque I.R. #3	5	0	
	Nequatque I.R. #3A	10	0	
	Nequatque I.R. #4	10	1	5L42
Mount Currie	Mount Currie I.R. #1	75	0	
	Mount Currie I.R. #2	40	0	
	Mount Currie I.R. #6	225	5	3L2
	Mount Currie I.R. #7	95	0	
	Mount Currie I.R. #8	310	0	
	Mount Currie I.R. #10	30	0	
	Nesuch I.R. #3	330	0	
	Lokla I.R. #4	0	0	
Squamish	Cheakamus I.R. #11[5]	1,150	80	2L1, 2L12

NOTES: [1] Physically developable area derived from 1:50,000 map base. Slope was major consideration. Other factors (i.e. agricultural potential, archaeological/cultural values, ownership pattern, etc.) not taken into consideration. Amount of land taken up by current development not excluded as appropriate mapping not available from Bands. Values rounded to nearest 5 hectares (except Seton Lake I.R. #5).

[2] B.C. Hydro facilities considered include major occupied transmission line rights-of-way, generating stations, canals and associated works. Values rounded to nearest hectare.

[3] Whispering Pines Band holds additional reserve land north of Kamloops.

[4] Lillooet I.R. #1A is a shared Reserve between the Lillooet and Bridge River Bands.

[5] Cheakamus I.R. #11 is one of 23 Reserves held by the Squamish Band; others are outside study area.